



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

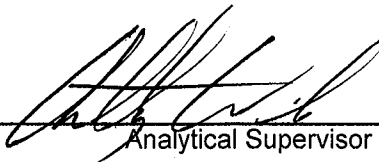
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00003234
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00003234001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 12/17/2009 10:00
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.38 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.41
Dissolved Oxygen: 19.10 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	12/18/2009				M Pattanayek	12/18/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	370	µg/L	2.9	10	A Bass	12/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	310	µg/L	6.4	10	M Pattanayek	12/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	12/18/2009
Arsenic	1.4J	µg/L	0.93	5	M Pattanayek	12/18/2009
Barium	26	µg/L	2.5	5	M Pattanayek	12/18/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	12/18/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	12/18/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	12/18/2009
Cobalt	0.35J	µg/L	0.04	1	M Pattanayek	12/18/2009
Copper	U	µg/L	0.38	1	M Pattanayek	12/18/2009
Lead	0.46J	µg/L	0.10	1	M Pattanayek	12/18/2009
Manganese	47	µg/L	0.42	1	M Pattanayek	12/18/2009
Nickel	1.3	µg/L	0.25	1	M Pattanayek	12/18/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	12/18/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	12/18/2009
Thallium	0.084J	µg/L	0.03	1	M Pattanayek	12/18/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	12/18/2009
Zinc	2.1J	µg/L	1.9	5	M Pattanayek	12/18/2009

Lab-Sample Number: K00003234001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 12/17/2009 10:00
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.38 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.41
Dissolved Oxygen: 19.10 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	M Pattanayek	12/21/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003234002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 12/17/2009 10:10
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.38 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.59
Dissolved Oxygen: 15.07 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	12/18/2009				M Pattanayek	12/18/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	390	µg/L	2.9	10	A Bass	12/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	420	µg/L	6.4	10	M Pattanayek	12/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	12/18/2009
Arsenic	2.5J	µg/L	0.93	5	M Pattanayek	12/18/2009
Barium	31	µg/L	2.5	5	M Pattanayek	12/18/2009
Beryllium	0.11J	µg/L	0.11	1	M Pattanayek	12/18/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	12/18/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	12/18/2009
Cobalt	0.41J	µg/L	0.04	1	M Pattanayek	12/18/2009
Copper	0.65J	µg/L	0.38	1	M Pattanayek	12/18/2009
Lead	0.58J	µg/L	0.10	1	M Pattanayek	12/18/2009
Manganese	45	µg/L	0.42	1	M Pattanayek	12/18/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	12/18/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	12/18/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	12/18/2009
Thallium	0.079J	µg/L	0.03	1	M Pattanayek	12/18/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	12/18/2009
Zinc	2.1J	µg/L	1.9	5	M Pattanayek	12/18/2009

Lab-Sample Number: K00003234002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 12/17/2009 10:10
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.38 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.59
Dissolved Oxygen: 15.07 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	M Pattanayek	12/21/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003234003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 12/17/2009 10:17
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.13 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.49
Dissolved Oxygen: 15.74 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	12/18/2009				M Pattanayek	12/18/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	330	µg/L	2.9	10	A Bass	12/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	340	µg/L	6.4	10	M Pattanayek	12/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	12/18/2009
Arsenic	1.6J	µg/L	0.93	5	M Pattanayek	12/18/2009
Barium	27	µg/L	2.5	5	M Pattanayek	12/18/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	12/18/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	12/18/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	12/18/2009
Cobalt	0.36J	µg/L	0.04	1	M Pattanayek	12/18/2009
Copper	U	µg/L	0.38	1	M Pattanayek	12/18/2009
Lead	0.43J	µg/L	0.10	1	M Pattanayek	12/18/2009
Manganese	48	µg/L	0.42	1	M Pattanayek	12/18/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	12/18/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	12/18/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	12/18/2009
Thallium	0.058J	µg/L	0.03	1	M Pattanayek	12/18/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	12/18/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	12/18/2009

Lab-Sample Number: K00003234003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 12/17/2009 10:17
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.13 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.49
Dissolved Oxygen: 15.74 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	M Pattanayek	12/21/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003234004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3FD
Station No.: EMORY001.7RO-FD
Date/Time Collected: 12/17/2009 10:17
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.13 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.49
Dissolved Oxygen: 15.74 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	12/18/2009				M Pattanayek	12/18/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	350	µg/L	2.9	10	A Bass	12/29/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	370	µg/L	6.4	10	M Pattanayek	12/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	12/18/2009
Arsenic	1.6J	µg/L	0.93	5	M Pattanayek	12/18/2009
Barium	27	µg/L	2.5	5	M Pattanayek	12/18/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	12/18/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	12/18/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	12/18/2009
Cobalt	0.37J	µg/L	0.04	1	M Pattanayek	12/18/2009
Copper	U	µg/L	0.38	1	M Pattanayek	12/18/2009
Lead	0.48J	µg/L	0.10	1	M Pattanayek	12/18/2009
Manganese	46	µg/L	0.42	1	M Pattanayek	12/18/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	12/18/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	12/18/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	12/18/2009
Thallium	0.056J	µg/L	0.03	1	M Pattanayek	12/18/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	12/18/2009
Zinc	2.0J	µg/L	1.9	5	M Pattanayek	12/18/2009

Lab-Sample Number: K00003234004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3FD
Station No.: EMORY001.7RO-FD
Date/Time Collected: 12/17/2009 10:17
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.13 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.49
Dissolved Oxygen: 15.74 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	U	µg/L	0.029	0.2	M Pattanayek	12/21/2009	

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003234005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3FB
Station No.: EMORY001.7RO-FB
Date/Time Collected: 12/17/2009 10:17
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	12/18/2009				M Pattanayek	12/18/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	U	µg/L	2.9	10	A Bass	12/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	U	µg/L	6.4	10	M Pattanayek	12/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	12/18/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	12/18/2009
Barium	U	µg/L	2.5	5	M Pattanayek	12/18/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	12/18/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	12/18/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	12/18/2009
Cobalt	U	µg/L	0.04	1	M Pattanayek	12/18/2009
Copper	U	µg/L	0.38	1	M Pattanayek	12/18/2009
Lead	U	µg/L	0.10	1	M Pattanayek	12/18/2009
Manganese	U	µg/L	0.42	1	M Pattanayek	12/18/2009
Nickel	U	µg/L	0.25	1	M Pattanayek	12/18/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	12/18/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	12/18/2009
Thallium	U	µg/L	0.03	1	M Pattanayek	12/18/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	12/18/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	12/18/2009

Lab-Sample Number: K00003234005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3FB
Station No.: EMORY001.7RO-FB
Date/Time Collected: 12/17/2009 10:17
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.034J	µg/L	0.029	0.2	M Pattanayek	12/21/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003234006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 12/17/2009 10:30
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 6.93 pH Units
Chlorine, residual:
Conductivity: 37 uMHO
Temperature: 8.45
Dissolved Oxygen: 17.47 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	12/18/2009				M Pattanayek	12/18/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	370	µg/L	2.9	10	A Bass	12/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	350	µg/L	6.4	10	M Pattanayek	12/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	12/18/2009
Arsenic	1.0J	µg/L	0.93	5	M Pattanayek	12/18/2009
Barium	25	µg/L	2.5	5	M Pattanayek	12/18/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	12/18/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	12/18/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	12/18/2009
Cobalt	0.34J	µg/L	0.04	1	M Pattanayek	12/18/2009
Copper	U	µg/L	0.38	1	M Pattanayek	12/18/2009
Lead	0.41J	µg/L	0.10	1	M Pattanayek	12/18/2009
Manganese	46	µg/L	0.42	1	M Pattanayek	12/18/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	12/18/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	12/18/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	12/18/2009
Thallium	0.044J	µg/L	0.03	1	M Pattanayek	12/18/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	12/18/2009
Zinc	2.0J	µg/L	1.9	5	M Pattanayek	12/18/2009

Lab-Sample Number: K00003234006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 12/17/2009 10:30
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 6.93 pH Units
Chlorine, residual:
Conductivity: 37 uMHO
Temperature: 8.45
Dissolved Oxygen: 17.47 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	U	µg/L	0.029	0.2	M Pattanayek	12/21/2009	

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003234007
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 12/17/2009 10:50
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 167 uMHO
Temperature: 9.91
Dissolved Oxygen: 15.34 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	12/18/2009				M Pattanayek	12/18/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	220	µg/L	2.9	10	A Bass	12/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	160	µg/L	6.4	10	M Pattanayek	12/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	12/18/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	12/18/2009
Barium	32	µg/L	2.5	5	M Pattanayek	12/18/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	12/18/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	12/18/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	12/18/2009
Cobalt	0.26J	µg/L	0.04	1	M Pattanayek	12/18/2009
Copper	U	µg/L	0.38	1	M Pattanayek	12/18/2009
Lead	0.39J	µg/L	0.10	1	M Pattanayek	12/18/2009
Manganese	58	µg/L	0.42	1	M Pattanayek	12/18/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	12/18/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	12/18/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	12/18/2009
Thallium	0.039J	µg/L	0.03	1	M Pattanayek	12/18/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	12/18/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	12/18/2009

Lab-Sample Number: K00003234007
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 12/17/2009 10:50
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 167 uMHO
Temperature: 9.91
Dissolved Oxygen: 15.34 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	M Pattanayek	12/21/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003234008
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 12/17/2009 11:00
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.74 pH Units
Chlorine, residual:
Conductivity: 53 uMHO
Temperature: 7.73
Dissolved Oxygen: 17.56 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	12/18/2009				M Pattanayek	12/18/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	370	µg/L	2.9	10	A Bass	12/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	370	µg/L	6.4	10	M Pattanayek	12/21/2009
Antimony	0.69J	µg/L	0.33	1	M Pattanayek	12/18/2009
Arsenic	5.5	µg/L	0.93	5	M Pattanayek	12/18/2009
Barium	34	µg/L	2.5	5	M Pattanayek	12/18/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	12/18/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	12/18/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	12/18/2009
Cobalt	0.35J	µg/L	0.04	1	M Pattanayek	12/18/2009
Copper	1.2	µg/L	0.38	1	M Pattanayek	12/18/2009
Lead	0.50J	µg/L	0.10	1	M Pattanayek	12/18/2009
Manganese	50	µg/L	0.42	1	M Pattanayek	12/18/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	12/18/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	12/18/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	12/18/2009
Thallium	0.096J	µg/L	0.03	1	M Pattanayek	12/18/2009
Vanadium	3.6J	µg/L	3.4	5	M Pattanayek	12/18/2009
Zinc	2.3J	µg/L	1.9	5	M Pattanayek	12/18/2009

Lab-Sample Number: K00003234008
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 12/17/2009 11:00
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.74 pH Units
Chlorine, residual:
Conductivity: 53 uMHO
Temperature: 7.73
Dissolved Oxygen: 17.56 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	U	µg/L	0.029	0.2	M Pattanayek	12/21/2009	

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number:	K00003234009	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.10 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	208 uMHO
Project Site No.:	6	Temperature:	10.46
Station No.:	CLINC004.5RO	Dissolved Oxygen:	15.36 mg/L
Date/Time Collected:	12/17/2009 10:35	Other:	
Sampler's Name:	Brandy Long	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	12/17/2009 12:50		
Received By:	S Staller		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	12/18/2009				M Pattanayek	12/18/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	290	µg/L	2.9	10	A Bass	12/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	130	µg/L	6.4	10	M Pattanayek	12/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	12/18/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	12/18/2009
Barium	31	µg/L	2.5	5	M Pattanayek	12/18/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	12/18/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	12/18/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	12/18/2009
Cobalt	0.20J	µg/L	0.04	1	M Pattanayek	12/18/2009
Copper	U	µg/L	0.38	1	M Pattanayek	12/18/2009
Lead	0.32J	µg/L	0.10	1	M Pattanayek	12/18/2009
Manganese	52	µg/L	0.42	1	M Pattanayek	12/18/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	12/18/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	12/18/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	12/18/2009
Thallium	U	µg/L	0.03	1	M Pattanayek	12/18/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	12/18/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	12/18/2009

Lab-Sample Number:	K00003234009	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.10 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	208 uMHO
Project Site No.:	6	Temperature:	10.46
Station No.:	CLINC004.5RO	Dissolved Oxygen:	15.36 mg/L
Date/Time Collected:	12/17/2009 10:35	Other:	
Sampler's Name:	Brandy Long	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	12/17/2009 12:50		
Received By:	S Staller		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.029J	µg/L	0.029	0.2	M Pattanayek	12/21/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00003234
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.



Analytical Supervisor

Lab-Sample Number: K00003234001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 12/17/2009 10:00
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.38 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.41
Dissolved Oxygen: 19.10 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	13	mg/L	3.8	10	M Chen	12/22/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	11	mg/L	0.7	1	M Chen	12/21/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	12/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	22	mg/L	10	10	A Peebles	12/18/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003234002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 12/17/2009 10:10
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.38 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.59
Dissolved Oxygen: 15.07 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	13	mg/L	3.8	10	M Chen	12/22/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	12	mg/L	0.7	1	M Chen	12/21/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	12/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	39	mg/L	10	10	A Peebles	12/18/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003234003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 12/17/2009 10:17
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.13 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.49
Dissolved Oxygen: 15.74 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	13	mg/L	3.8	10	M Chen	12/22/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	12	mg/L	0.7	1	M Chen	12/21/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	12/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	24	mg/L	10	10	A Peebles	12/18/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003234004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3FD
Station No.: EMORY001.7RO-FD
Date/Time Collected: 12/17/2009 10:17
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.13 pH Units
Chlorine, residual:
Conductivity: 38 uMHO
Temperature: 8.49
Dissolved Oxygen: 15.74 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	13	mg/L	3.8	10	M Chen	12/22/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	12	mg/L	0.7	1	M Chen	12/21/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	12/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	26	mg/L	10	10	A Peebles	12/18/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003234005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3FB
Station No.: EMORY001.7RO-FB
Date/Time Collected: 12/17/2009 10:17
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	U	mg/L	3.8	10	M Chen	12/22/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	U	mg/L	0.7	1	M Chen	12/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	12/18/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003234006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 12/17/2009 10:30
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 6.93 pH Units
Chlorine, residual:
Conductivity: 37 uMHO
Temperature: 8.45
Dissolved Oxygen: 17.47 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	12	mg/L	3.8	10	M Chen	12/22/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	13	mg/L	0.7	1	M Chen	12/21/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	12/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	15	mg/L	10	10	A Peeples	12/18/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003234007
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 12/17/2009 10:50
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 167 uMHO
Temperature: 9.91
Dissolved Oxygen: 15.34 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	89	mg/L	3.8	10	M Chen	12/22/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	66	mg/L	0.7	1	M Chen	12/21/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	12/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	14	mg/L	10	10	A Peebles	12/18/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003234008
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 12/17/2009 11:00
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 12/17/2009 12:50
Received By: S Staller

Field Determinations
pH: 7.74 pH Units
Chlorine, residual:
Conductivity: 53 uMHO
Temperature: 7.73
Dissolved Oxygen: 17.56 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	17	mg/L	3.8	10	M Chen	12/22/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	21	mg/L	0.7	1	M Chen	12/21/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	12/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	15	mg/L	10	10	A Peebles	12/18/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00003234009	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.10 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	208 uMHO
Project Site No.:	6	Temperature:	10.46
Station No.:	CLINC004.5RO	Dissolved Oxygen:	15.36 mg/L
Date/Time Collected:	12/17/2009 10:35	Other:	
Sampler's Name:	Brandy Long	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	12/17/2009 12:50		
Received By:	S Staller		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	12/22/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	84	mg/L	0.7	1	M Chen	12/21/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	12/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	12/18/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected